

CLAIMS

1. A game system performing image generation, comprising:

5 intermediate buffer drawing means which temporarily draws an image of a geometry-processed object in an intermediate buffer in place of drawing the image in a frame buffer; and

10 frame buffer drawing means for drawing the image of the geometry-processed object drawn in the intermediate buffer from the intermediate buffer into the frame buffer.

2. The game system according to claim 1,

15 wherein into the frame buffer, the frame buffer drawing means draws a primitive surface of which drawing positions is specified based on three-dimensional information of the object and on which the image of the geometry-processed object drawn in the intermediate 20 buffer is texture-mapped.

3. The game system according to claim 2,

25 wherein when a plurality of primitive surfaces corresponding to a plurality of objects are to be drawn into the frame buffer, the frame buffer drawing means performs hidden-surface removal between the primitive surfaces based on the depth values of the respective

primitive surfaces.

4. The game system according to claim 2,
wherein the frame buffer drawing means draws a
5 plurality of primitive surfaces of which drawing
positions are specified based on the three-dimensional
information of one object into the frame buffer, and
makes images texture-mapped over the plurality of
primitive surfaces different from one another.

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5. The game system according to claim 1, further
comprising means for performing a given image effect
processing on the image on the intermediate buffer before
the image drawn in the intermediate buffer is drawn in
15 the frame buffer.

6. The game system according to claim 1, further
comprising means for synthesizing an image drawn in the
intermediate buffer at a present frame with another image
20 drawn in the intermediate buffer at a past frame before
the image drawn in the intermediate buffer is drawn in
the frame buffer.

7. The game system according to claim 1, further
25 comprising means for synthesizing an image drawn in the
intermediate buffer with another image drawn in the frame
buffer before the image drawn in the intermediate buffer

is drawn in the frame buffer.

8. The game system according to claim 1,
wherein the intermediate buffer drawing means
5 draws the image of the geometry-processed object in the
intermediate buffer for each discrete frame.

9. The game system according to claim 8,
wherein when the images of plural geometry-
10 processed objects are drawn in the intermediate buffer,
the intermediate buffer drawing means draws an image of
the K-th object in the intermediate buffer at the N-
th frame and draws an image of the L-th object in the
intermediate buffer at the (N+1)-th frame without
15 drawing the image of the K-th object in the intermediate
buffer.

10. A computer-usable program embodied on an
information storage medium or in a carrier wave, the
20 program comprising a processing routine for a computer
to realize:

intermediate buffer drawing means which
temporarily draws an image of a geometry-processed
object in an intermediate buffer in place of drawing the
25 image in a frame buffer; and

frame buffer drawing means for drawing the image
of the geometry-processed object drawn in the

intermediate buffer from the intermediate buffer into the frame buffer.

11. The program according to claim 10,

5 wherein into the frame buffer, the frame buffer drawing means draws a primitive surface of which drawing positions is specified based on three-dimensional information of the object and on which the image of the geometry-processed object drawn in the intermediate 10 buffer is texture-mapped.

12. The program according to claim 11,

wherein when a plurality of primitive surfaces corresponding to a plurality of objects are to be drawn 15 into the frame buffer, the frame buffer drawing means performs hidden-surface removal between the primitive surfaces based on the depth values of the respective primitive surfaces.

20 13. The program according to claim 11,

wherein the frame buffer drawing means draws a plurality of primitive surfaces of which drawing positions are specified based on the three-dimensional information of one object into the frame buffer, and 25 makes images texture-mapped over the plurality of primitive surfaces different from one another.

14. The program according to claim 10, further comprising a processing routine for a computer to realize means for performing a given image effect processing on the image on the intermediate buffer before the image 5 drawn in the intermediate buffer is drawn in the frame buffer.

15. The program according to claim 10, further comprising a processing routine for a computer to realize 10 means for synthesizing an image drawn in the intermediate buffer at a present frame with another image drawn in the intermediate buffer at a past frame before the image drawn in the intermediate buffer is drawn in the frame buffer.

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16. The program according to claim 10, further comprising a processing routine for a computer to realize means for synthesizing an image drawn in the intermediate buffer with another image drawn in the frame buffer 20 before the image drawn in the intermediate buffer is drawn in the frame buffer.

17. The program according to claim 10,
wherein the intermediate buffer drawing means 25 draws the image of the geometry-processed object in the intermediate buffer for each discrete frame.

18. The program according to claim 17,
wherein when the images of plural geometry-
processed objects are drawn in the intermediate buffer,
the intermediate buffer drawing means draws an image of
5 the K-th object in the intermediate buffer at the N-
th frame and draws an image of the L-th object in the
intermediate buffer at the (N+1)-th frame without
drawing the image of the K-th object in the intermediate
buffer.

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19. An image generation method for generating an image,
comprising steps of:

temporarily drawing an image of a geometry-
processed object in an intermediate buffer in place of
15 drawing the image in a frame buffer; and

drawing the image of the geometry-processed object
drawn in the intermediate buffer from the intermediate
buffer into the frame buffer.

20 20. The image generation method according to claim 19,
wherein a primitive surface, of which drawing
positions is specified based on three-dimensional
information of the object and on which the image of the
geometry-processed object drawn in the intermediate
25 buffer is texture-mapped, is drawn into the frame buffer.

21. The image generation method according to claim 20,

wherein when a plurality of primitive surfaces corresponding to a plurality of objects are to be drawn into the frame buffer, hidden-surface removal between the primitive surfaces is performed based on the depth 5 values of the respective primitive surfaces.

22. The image generation method according to claim 20, wherein a plurality of primitive surfaces of which drawing positions are specified based on the three-dimensional information of one object are drawn into the frame buffer, and images texture-mapped over the plurality of primitive surfaces are different from one 10 another.

15 23. The image generation method according to claim 19, wherein a given image effect processing on the image on the intermediate buffer is performed before the image drawn in the intermediate buffer is drawn in the frame buffer.

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24. The image generation method according to claim 19, wherein an image drawn in the intermediate buffer at a present frame is synthesized with another image drawn in the intermediate buffer at a past frame before 25 the image drawn in the intermediate buffer is drawn in the frame buffer.

25. The image generation method according to claim 19,
wherein an image drawn in the intermediate buffer
is synthesized with another image drawn in the frame
buffer before the image drawn in the intermediate buffer
5 is drawn in the frame buffer.

26. The image generation method according to claim 19,
wherein the image of the geometry-processed object
in the intermediate buffer is drawn for each discrete
10 frame.

27. The image generation method according to claim 26
wherein when the images of plural geometry-
processed objects are drawn in the intermediate buffer,
15 an image of the K-th object in the intermediate buffer
is drawn at the N-th frame and an image of the L-th object
in the intermediate buffer is drawn at the (N+1)-th frame
without drawing the image of the K-th object in the
intermediate buffer.